# Use of natural health products in children

Experiences and attitudes of family physicians in Newfoundland and Labrador

Marshall Godwin MD MSc FCFP Farah McCrate MSc Leigh Anne Newhook MD MSc FRCPC Andrea Pike MSc John Crellin MD PhD Rebecca Law PharmD Maria Mathews PhD Nurun L. Chowdhury

# **Abstract**

Objective To determine the experiences of family physicians in Newfoundland and Labrador with parents' use of natural health products (NHPs) for their children and to assess physicians' attitudes toward use of NHPs in children.

**Design** A survey using the Dillman approach.

**Setting** Newfoundland and Labrador.

**Participants** All family physicians in the province.

Main outcome measures Physician demographic characteristics; whether physicians inquire about the use of NHPs in children; the degree to which they think patients disclose use of NHPs in children; whether they counsel parents about the potential benefits or harms of NHPs; their own opinions about the usefulness of NHPs; whether they recommend NHPs in children and for what reasons; and the particular NHPs they have seen used in children and for what reasons.

Results A total of 159 (33.1%) family physicians responded; 65.4% were men, 71.7% were Canadian medical graduates, and 46.5% practised in rural areas. Overall, 18.8% of family physicians said they regularly or frequently asked about NHP use; 24.7% counseled patients about potential harms. Only 1.9% of physicians believed NHPs were usually beneficial, but a similarly small number (8.4%) thought they were usually harmful. Most respondents were somewhat neutral; 59.7% said they never recommend NHPs for children, and a further 37.0% said they would only "sometimes" recommend NHPs

Conclusion Most physicians believed that NHPs were probably of little benefit but not likely to be harmful. Most NHPs used were vitamins and minerals. Physicians recognized that NHPs were often used by parents for children, but in general they believed NHPs had little effect on their dayto-day medical practices. Thirty-eight (24.7%) of the 154 physicians had at least once recommended an NHP (including vitamins) for their pediatric patients. Physicians believed that parents did not often disclose use of NHPs for their children, but at the same time physicians generally did not actively inquire.

## **EDITOR'S KEY POINTS**

- Use of natural health products (NHPs) is increasing, including among pediatric populations, but little is known about how these products are used and what patients communicate to their physicians about the use of such products. This article is the first of a series based on the results of a study of the use of NHPs among children in Newfoundland and Labrador. This article reports on a survey of family physicians in the province.
- Physician respondents reported that parents only rarely voluntarily disclosed information on NHPs for their children or requested information on safety or effectiveness. Given that relatively few parents do either regularly, it is noteworthy that only about one-fifth of physicians indicated that they regularly or frequently asked about NHP use.
- This study also found that parents were more likely to voluntarily inform physicians of NHP use when the physicians were known to be willing to engage in discussion about NHPs.

# Utilisation de produits de santé naturels chez l'enfant

Expériences et attitudes des médecins de famille de Terre-Neuve-et-Labrador

Marshall Godwin MD MSc FCFP Farah McCrate MSc Leigh Anne Newhook MD MSc FRCPC Andrea Pike MSc John Crellin MD PhD Rebecca Law PharmD Maria Mathews PhD Nurun L. Chowdhury

# Résumé

**Objectif** Déterminer ce que les médecins de famille de Terre-Neuve-et-Labrador connaissent de l'utilisation par les parents de produits de santé naturels (PSN) pour leurs enfants et ce qu'ils pensent de cette pratique.

Type d'étude Enquête utilisant la méthode de Dillman.

Contexte Terre-Neuve-et-Labrador.

Participants Tous les médecins de famille de la province.

**Principaux paramètres à l'étude** Caractéristiques démographiques des médecins; s'informent-ils au sujet de l'utilisation de PSN pour les enfants; dans quelle mesure croient-ils que les parents avouent utiliser des PSN pour leurs enfants; donnent-ils des conseils aux parents sur les avantages et inconvénients potentiels des PSN; quelle est leur propre opinion à propos de l'utilité des PSN; recommandent-ils les PSN pour les enfants et pourquoi; et quels sont les types de PSN dont ils ont constaté l'usage chez les enfants et les raisons invoquées pour le faire.

**Résultats** Un total de 159 médecins de famille (33,1%) ont répondu; 65,4% d'entre eux étaient des hommes, 71,7% étaient diplômés de facultés canadiennes et 46,5% exerçaient en région rurale. Dans l'ensemble, 18,8% d'entre eux disaient s'enquérir régulièrement ou fréquemment de l'utilisation des PSN; 24,7% donnaient des conseils sur leurs dangers potentiels. Seulement 1,9% des médecins croyaient qu'ils étaient habituellement bénéfiques, tandis qu'un pourcentage également faible (8,4%) les croyaient généralement nocifs. La plupart des répondants étaient plutôt neutres; 59,7% disaient ne jamais recommander les PSN pour les enfants alors que 37,0% les recommandaient «seulement» à l'occasion.

**Conclusion** La plupart des médecins croyaient les PSN peu utiles mais probablement peu nocifs. La plupart des PSN utilisés étaient des vitamines et des minéraux. Les médecins étaient conscients que les parents donnaient souvent des PSN à leurs enfants, mais ils croyaient généralement que ces produits avaient peu d'effet sur leur pratique médicale quotidienne. Sur les 154 médecins qui traitaient des enfants, 38 (24,7%) avaient recommandé au moins un de ces produits (dont des vitamines) pour leurs jeunes clients. Les médecins croyaient que les parents mentionnaient rarement qu'ils utilisaient des PSN pour leurs enfants; il est vrai toutefois qu'en général, les médecins ne s'en informaient pas souvent.

## POINTS DE REPÈRE DU RÉDACTEUR

- L'utilisation de produits de santé naturels (PSN) est à la hausse, notamment chez les enfants, mais on sait peu de choses sur la façon dont ils sont utilisés et sur ce que les parents disent à leur médecin sur cette pratique. Cet article est le premier d'une série basée sur les résultats d'une étude sur l'utilisation de PSN chez les enfants de Terre-Neuve-et-Labrador. Il décrit une enquête effectuée auprès des médecins de famille de la province.
- Les répondants ont mentionné qu'il est rare que les parents donnent volontairement de l'information sur l'utilisation de PSN pour leurs enfants ou qu'ils s'informent de l'innocuité ou de l'efficacité de ces produits. Étant donné que peu de parents abordent ces 2 sujets, il est intéressant de noter qu'à peine un cinquième des médecins ont déclaré qu'ils posent régulièrement ou fréquemment des questions sur l'utilisation des PSN.
- Cette étude a aussi montré que les parents étaient davantage susceptibles de discuter de l'utilisation des PSN avec leur médecin lorsque celui-ci avait l'habitude d'aborder lui-même ce sujet.

Cet article a fait l'objet d'une révision par des pairs. *Can Fam Physician* 2013;59:e357-63

n the early 2000s, Health Canada and others called for investigations into the use of "natural health products" (NHPs) for children. The rich and relatively persistent oral tradition of self-care in Newfoundland and Labrador presented an ideal place for this study of both recent and folklore-based health remedies. 1,2

This article is the first of a series based on the results of a study of the use of NHPs in children in Newfoundland and Labrador. This article reports on a survey of family physicians in the province.

Complementary and alternative medicine (CAM) is the term commonly used to describe health practices outside of conventional medicine. Use of NHPs is a component of CAM. A US study suggests that approximately 10% of children and 50% of adults who visit physicians are using or have used NHPs in the past year.<sup>3</sup> Seventy percent of people do not inform their physicians that they are using NHPs.4

In 2009, Hirschkorn and colleagues<sup>5</sup> studied the provision of CAM services to patients by Canadian family physicians. They found that solo practitioners were more likely to offer CAM services to their patients than physicians in group practices were; those trained in English-speaking schools were more likely than those trained in French-speaking schools to offer such services; and physicians in British Columbia were more likely to provide or recommend CAM services than physicians in other parts of the country were.

Fries<sup>6</sup> surveyed Canadian family physicians in 2008 about their "belief in the degree of therapeutic effectiveness" of 15 CAM therapies. Physicians believed that acupuncture, massage, chiropractic care, relaxation therapy, biofeedback, and spiritual healing were effective when used in conjunction with biomedicine for chronic and psychosomatic conditions. However, CAM therapies in which NHPs might be used, such as homeopathy, naturopathy, herbal medicine, or traditional Chinese medicine, were attributed little effectiveness. Similarly, in Australia, acupuncture, chiropractic care, and hypnosis were widely accepted, but other CAM therapies were less so.7

Brown et al<sup>8</sup> reported in 2007 on a survey of health professionals in a tertiary pediatric and women's health facility in Halifax, NS. They found the following:

[H]ealth professionals: (1) are supportive of the use of selected CAM therapies by patients; (2) have almost no personal experience of CAM; (3) have limited knowledge about CAM and acquire that information mainly from the Internet, friends or family rather than professional journals; (4) are uncomfortable discussing CAM with patients and; (5) rarely or never ask patients about CAM use.8

In Quebec, Jean and Cyr9 asked parents of children aged 0 to 8 to complete a questionnaire about NHP

use in their children. Fifty-four percent of children had used NHPs within the previous year. Most users (75%) believed that CAM had no potential adverse effects or interactions with prescribed medication. Physicians were aware of the NHP use in only 44% of cases.

In our study we surveyed family physicians in Newfoundland and Labrador, asking about their experiences with parents giving NHPs to children.

The specific objectives of the study were as follows:

- to inquire about physicians' experiences with parents giving NHPs to their children;
- to inquire about physicians' awareness of why parents use NHPs in their children;
- to inquire whether physicians recommend any NHPs and which ones; and
- to inquire into physicians' impressions of effectiveness and safety of NHP in children.

## **METHODS**

The project was approved by the Human Investigation Committee of Memorial University of Newfoundland in St John's.

# Study population

A database that included the names and mailing addresses of all 498 family physicians licensed and practising in Newfoundland and Labrador was developed and cross-referenced using independent sources: the physician membership lists held by the Newfoundland and Labrador College of Physicians and Surgeons, the Professional Development and Conferencing Services at the Faculty of Medicine of Memorial University, and the Canadian Medical Directory.

## Survey development

The survey questionnaire was developed and piloted on 6 family physicians; suggested changes were made to improve the clarity of the questions and response choices. The final questionnaire was 2 pages long and had 6 demographic questions, 12 Likert scale questions, and 2 open-ended questions. The questionnaire was distributed by mail using the Dillman process.<sup>10</sup> The first mailing of the questionnaire to all family physicians in the database was followed 1 week later by a reminder postcard. At 3 weeks and 8 weeks after the first mailing, a follow-up mailing of the questionnaire was sent to all nonrespondents. The survey was anonymous. Postcards, mailed back separately from the questionnaires, allowed us to know whom not to send follow-up questionnaires to.

# **Definition of NHPs**

Unfortunately, a lack of consensus exists over what an

NHP is. Health Canada, for the purposes of registration of a product as an NHP, includes the following types of products:

- · vitamins and minerals;
- · herbal remedies;
- homeopathic medicines;
- · traditional medicines such as traditional Chinese med-
- · probiotics; and
- · other products like amino acids and essential fatty

However, during the piloting of our survey it became clear that this definition was not well known. Thus, to help physicians, we included the terms dietary supplements (commonly understood to include probiotics and other products in Health Canada's definition) and naturopathic, which is used, if not appropriately, as an alternative term for herb. We also wanted to capture such traditional "folk" remedies as herbal teas, etc, so we also added the term folk remedies. Thus our survey defined NHPs as follows:

- · herbal remedies;
- · homeopathic and naturopathic medicines;
- · traditional medicines such as traditional Chinese med-
- · dietary supplements;
- · folk remedies;
- · multivitamins and minerals; and
- · products like probiotics, amino acids, essential fatty acids, cod-liver oil, echinacea, and vitamin C or vitamin A for a cold.

Vitamins used according to Canadian Paediatric Society recommendations (eg, vitamin D in breastfed children) or to correct a known deficiency were not considered to be NHPs.

## Statistical analysis

Descriptive and summary statistics were carried out using SPSS, version 17. Cross-tabulations and  $\chi^2$  analyses were used to calculate relative risks, 95% CIs, and P values.

#### **RESULTS**

Of the 498 family physicians in the original mailing list, 17 were either not in practice, had moved, or had died. This left an eligible population of 481 family physicians. A total of 159 physicians responded to the survey, for a response rate of 33.1%.

Table 1 reports the demographic characteristics of the responding physicians. Most physicians were male (65.4%), approximately half were born after 1960 and graduated from medical school after 1987; most (71.7%) had graduated from Canadian medical schools; and

46.5% were in rural practice. Nearly all (154 of the 159 respondents; 96.9%) saw children in their practices. The remainder of the data reported in this study pertain to these 154 physicians only.

Table 2 details the range of responses to the Likert scale questions. The questions are divided into 2 types: those looking at whether parents voluntarily provided information, and those relating to physicians' actions and opinions. In a cross-tabulation analysis comparing physician willingness to engage at all in dialogue with patients about NHPs (inquiring about NHP use, counseling patients about potential harm and potential interactions) and their assessment of whether parents voluntarily told them they gave NHPs to their children, physicians were 4.5 times more likely (95% CI 1.9 to 10.6) to indicate that parents would voluntarily inform them of NHP use if they were open to dialogue about NHPs.

We also looked at whether there were differences in responses based on sex, age, location of practice, and whether respondents were Canadian or international medical graduates. There were no differences by age, sex, or country of graduation. However, we found 2 differences between rural and urban physicians: urban physicians said parents were more likely to volunteer that their children were taking NHPs (relative risk 1.08, 95% CI 1.00 to 1.16, *P*=.048); and rural physicians were more likely to counsel parents about the potential harms of NHPs (relative risk 1.98, 95% CI 1.11 to 3.53, P=.028).

Tables 3 and 4 report data from 38 physicians who listed at least 1 NHP that they recommended for children (83 different products were mentioned in total). While vitamins and minerals predominated, a range of products was recommended for the conditions noted.

## DISCUSSION

Regarding physicians' recollections of information from parents, a strikingly similar range of recollections existed on whether parents voluntarily disclosed information on NHPs for their children or requested information on either safety or effectiveness (never, approximately 20%; sometimes, approximately 70%; regularly, approximately

Table 1. Demographic characteristics of responding physicians: N = 159.

CHARACTERISTIC	VALUE
Female sex, n (%)	55 (34.6)
Median year of birth	1960
Median year of graduation	1987
Graduated from a Canadian medical school, n (%)	114 (71.7)
Rural practice (self-declared), n (%)	74 (46.5)
Care for children in their practice, n (%)	154 (96.9)

QUESTION	NEVER, N (%)	SOMETIMES, N (%)	REGULARLY, N (%)	FREQUENTLY, N (%)
Do parents voluntarily disclose to you that they are giving NHPs to their children?	33 (21.4)	113 (73.4)	7 (4.5)	1 (0.6)
Do you inquire about whether parents are using NHPs for their children?	31 (20.1)	94 (61.0)	25 (16.2)	4 (2.6)
If parents tell you that they give NHPs to their child, do you record it in the child's chart?	7 (4.5)	66 (42.9)	60 (39.0)	21 (13.6)
Do you counsel parents on potential harms from use of NHPs for children?	23 (14.9)	93 (60.4)	30 (19.5)	8 (5.2)
Do you counsel parents on potential interactions between medications and NHPs in their children?	17 (11.0)	88 (57.1)	37 (24.0)	12 (7.8)
Do parents seek information from you about the safety of using NHPs for their children?	37 (24.0)	101 (65.6)	13 (8.4)	3 (1.9)
Do parents seek information from you about the effectiveness of using NHPs for their children?	32 (20.8)	111 (72.1)	9 (5.8)	2 (1.3)
In your opinion, are NHPs beneficial?	15 (9.7)	136 (88.3)	2 (1.3)	1 (0.6)
In your opinion, are NHPs harmful?	1 (0.6)	140 (90.9)	5 (3.2)	8 (5.2)
Do you recommend NHPs to your pediatric patients?	92 (59.7)	57 (37.0)	4 (2.6)	1 (0.6)

6%; and frequently, approximately 2%). Given that relatively few parents do either regularly, it is noteworthy that, in looking at physicians' stated actions and opinions, only about one-fifth of physicians regularly or frequently asked about NHPs. This hardly suggests a widespread proactive approach, so there is no reason to believe that, in general, questions from parents are actively encouraged. Even then, much of the physician questioning (as with the 61.0% who sometimes inquired) was likely to be focused on vitamins or minerals, the products most widely promoted and used.

Overall, the responses to the survey questions relating to physician attitudes are compatible with ambivalence about, even uncertainty toward, NHPs. One way physicians deal with uncertain knowledge is to play it "safe," and it is noteworthy that most physicians (approximately 85%) sometimes, regularly, or frequently counseled parents about potential harms, including interactions with prescription or over-the-counter medications. Moreover, more than half of respondents never recommended NHPs, even though about 90% saw them as sometimes beneficial.

On the other hand, items listed in Tables 3 and 4 indicate that, if due attention is given to dosage and the health and age of the child, safety issues are minimal for the products recommended by about a quarter of physicians, and hence alarmist language over safety is rarely called for. Such products are mostly vitamins, minerals, and the currently fashionable echinacea, fish oil or omega-3 fatty acids, and probiotics. Of the rest, leaving aside the foods listed—further evidence of confusion over defining NHPs—a number of once-commonplace

home remedies are listed (eg, honey, hot lemon, saline drops and soaks, and salt-and-sugar water). The homeopathic remedies do present an unknown entity, for it was not reported whether these were prescribed in accordance with homeopathic principles or as over-thecounter products for which questions of effectiveness, if not safety, might be raised.

A minority of family physicians in Newfoundland and Labrador recommend the use of NHPs for their pediatric patients, and those products recommended are generally vitamins and minerals (vitamins C and D; minerals such as iron and zinc). For most physicians, NHPs are "sometimes" discussed with their patients

Table 3. The NHPs recommended by physicians for use in children: Responses are from the 38 physicians who recommended these NHPs for use in children.

NHP	N (%)
Multivitamins	27 (71.1)
Specific vitamins (D, C, B, etc)	12 (31.6)
Fish oil or omega-3	6 (15.8)
Minerals (iron, zinc)	10 (26.3)
Echinacea	3 (7.9)
Probiotics	7 (18.4)
Other*	18 (47.4)

NHP—natural health product.

\*Fewer than 3 physicians mentioned the individual items in this category. These items included foods (nuts, whole wheat bread, fruits, milk), other herbal remedies, homeopathic remedies, honey, hot lemon, mineral oil, saccharomyces, saline drops, saline soaks, salt-and-sugar water, and TN Zen (unidentified).

Table 4. Physicians' reasons for recommending NHPs		
NHP	REASON FOR RECOMMENDATION	
Black walnut	Intestinal parasites	
Echinacea	Prevent colds	
Fish oil	Bowel health, bones and brain, ADHD, learning disabilities	
Homeopathic remedies	Asthma, sinusitis, irritable bowel	
Honey	Common cold	
Hot lemon	Common cold	
Iron	Anemia	
Lactobacillus	Prevent vaginal conditions due to antibiotics	
Mineral oil	Bowel health	
Multivitamin	Eating problems, insurance in winter, general nutrition, poor diet, frequent colds, dietary supplement	
Probiotics	Bowel health, after antibiotics	
Saccharomyces	Recovery from diarrhea	
Saline nasal drops	Nasal congestion	
Saline soaks	Treatment of infected areas of the body (eg, ingrown toenails)	
Salt, sugar, water	Oral hydration	
TN Zen	Irritable bowel syndrome	
Vitamin C	Common cold, fracture healing	
Vitamin D	Bones or teeth, during breastfeeding	
Zinc	Deficiency (taste testing), upper respiratory tract infections	
ADHD—attention defice product.	eit hyperactivity disorder, NHP—natural health	

and are "sometimes" recommended; physicians "sometimes" have concerns about them, and "sometimes" believe such products can have benefits. A small minority of physicians believe NHPs provide regular benefit to patients; and an equally small number believe they are regularly harmful. Only about 3% of physicians regularly or frequently recommend NHPs and nearly 60% said they never recommend NHPs.

Some physicians expressed a negative attitude toward NHPs, and most physicians demonstrated an attitude that NHPs were probably of little benefit but not likely to be harmful. Physicians recognize that NHPs are often used by parents for their children, but in general believe such products have little effect on day-to-day medical practice. Thirty-eight (24.7%) of the 154 physicians have at least once recommended an NHP (including vitamins) for their pediatric patients.

Use of NHPs in children appears to be, at the most, a back-seat consideration in the practices of family physicians in Newfoundland and Labrador. This is seemingly in line with other studies in Canada. For

instance, Fries found that family physicians attributed little effectiveness to therapies using NHPs (eg, homeopathy, naturopathy, herbal medicine, and traditional Chinese medicine).6 Further, Brown et al reported that health professionals were uncomfortable discussing CAM with patients and rarely or never asked patients about CAM use.8

Given the concerns expressed in recent years about the safety of NHPs (including interactions with prescription drugs), the limited proactive attitudes suggested by this study deserve attention. Although no evidence emerged that potentially serious problems are anything but a rare event in general practice, a casual approach to NHPs opens the door to complacency and the danger of missing a serious health hazard, or even failure to recognize whether a product is being given to a child more for the benefit of the parent.

While we can only reiterate a message that has been communicated frequently in recent years that the safety of NHPs in society should have more attention in, at least, continuing medical education, we would add that familiarity with discussing NHPs, and the avoidance of often-alarmist language over potential safety issues that contradicts the popular literature on NHPs, facilitates practitioner-patient relationships. This is supported by our finding that parents are more likely to voluntarily inform physicians of NHP use when the physician is known to be willing to engage in a discussion about NHPs.

#### Limitations

This study had a low response rate of 33.1%. This is a lower response rate than our research group has previously experienced when surveying the same group of family physicians about other topics.<sup>12</sup> It might indicate a lack of interest in the subject area. If this is so, physicians who have negative or disinterested attitudes toward NHPs might have been less likely to respond, and our results are subject to responder bias. Perhaps there is less use of NHPs overall than we have reported and a more negative or disinterested attitude toward NHPs by family physicians than we have detected in this survey.

Another limitation that might have made the responses difficult to interpret is the inclusion of vitamins in the definition of NHPs. Physicians thinking "vitamins" when they responded to the questions might have responded differently than those who were thinking "nonvitamins" when they responded. Another issue might have been the response categories for the Likert scale questions. The general clustering of responses around the "sometimes" option could, in retrospect, have been predicted. It might have been better if we had divided that option into "infrequently" and "sometimes."

# Conclusion

Most physicians thought that NHPs were probably of little benefit but not likely to be harmful. Most of the NHPs used were vitamins and minerals. Physicians recognize that NHPs are often used by parents for children, but in general they believe that such products have little effect on their day-to-day medical practices. Thirty-eight (24.7%) of the 154 physicians have at least once recommended an NHP (including vitamins) for their pediatric patients. Physicians believe that parents do not often disclose use of NHPs in their children, but at the same time physicians generally do not actively inquire.

Dr Godwin works in the Primary Healthcare Research Unit at Memorial University of Newfoundland in St John's. Ms McCrate works with Eastern Health in Newfoundland and Labrador. Dr Newhook works in the Discipline of Pediatrics, Ms Pike works in the Primary Healthcare Research Unit, Dr Crellin works as Honorary Research Professor, Dr Law works in the School of Pharmacy, Dr Mathews works in the Division of Community Health and Humanities, and Ms Chowdhury works in the Faculty of Medicine, all at Memorial University.

#### Acknowledgment

Funding for the study was provided by the Lotte and John Hecht Foundation of Vancouver, BC.

#### Contributors

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

#### Competing interests

None declared

#### Correspondence

**Dr Marshall Godwin,** Memorial University of Newfoundland, Primary Healthcare Research Unit, Room 1776, Health Science Centre, 300 Prince Phillip Dr, St John's, NL A1B 3V6; telephone 709 777-8373; fax 709 777-6118; e-mail **godwinm@mun.ca** 

#### References

- Natural health products research in children and youth. A priority-setting conference. March 17-18, 2002; Toronto, ON.
- 2. Vohra S, Moher D. Complementary and alternative medicine in Canadian children: a call for action. *Pediatri Child Health* 2005;10(3):154-6.
- Barnes PA, Bloom B, Nahin RL. Complementary and alternative medicine use among adults and children: United States, 2007. Natl Health Stat Report 2008;12:1-24. Available from: www.cdc.gov/nchs/data/nhsr/nhsr012.pdf. Accessed 2013 Jul 9.
- Lerman J. Herbal medicines in children: caveat medicus. Paediatr Anaesth 2005;15(6):443-5.
- Hirschkorn KA, Andersen R, Bourgeault IL. Canadian family physicians and complementary/alternative medicine: the role of practice setting, medical training, and province of practice. *Can Rev Sociol* 2009;46(2):143-59.
- Fries JF. Classification of complementary and alternative medical practice. Family physicians' ratings of effectiveness. *Can Fam Physician* 2008;54:1570-1.e1-7. Available from: www.cfp.ca/content/54/11/1570. full.pdf+html. Accessed 2013 Jul 9.
- Pirotta MV, Cohen MM, Kotsinlos V, Farish SJ. Complementary therapies: have they become accepted in general practice? Med J Aust 2000;172(3):105-9.
- 8. Brown J, Cooper E, Frankton L, Steeves-Wall M, Gillis-Ring J, Barter W, et al. Complementary and alternative therapies: survey of knowledge and attitudes of health professionals at a tertiary pediatric/women's care facility. *Complement Ther Clin Pract* 2007;13(3):194-200.
- Jean D, Cyr C. Use of complementary and alternative medicine in a general pediatric clinic. Pediatrics 2007;120(1):e138-41.
- Dillman DA. Mail and Internet surveys: the tailored design method. New York, NY: Wiley, 1999.
- 11. Health Canada [website]. *Natural health products*. Ottawa, ON: Health Canada; 2012. Available from: www.hc-sc.gc.ca/dhp-mps/prodnatur/index-eng.php. Accessed 2012 Feb 18.
- 12. McCrate F, Godwin M, Murphy L. Attainment of Canadian Diabetes Association recommended targets in patients with type 2 diabetes. A study of primary care practices in St John's, Nfld. *Can Fam Physician* 2010;56(1):e13-9. Available from: www.cfp.ca/content/56/1/e13.full. pdf+html. Accessed 2013 Jul 9.

~262